



Overall AB 1007 Alternative Fuels Analysis Methodology

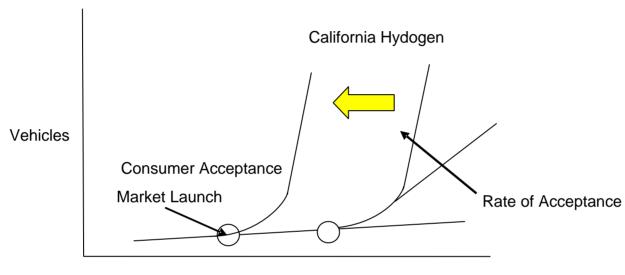
Presented at CEC-ARB Workshop on Developing a State Plan to Increase the Use of Alternative Transportation Fuels May 31, 2007

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- Starting point was 2005 Integrated Energy Policy Report (05IEPR)
 - Stakeholder Groups for natural gas, propane, biofuels/ethanol, hydrogen, electric drive technologies, alternative diesel fuels and others
 - Use energy demand projections
- Objective of analysis to determine possible alternative fuel penetration scenarios and to estimate
 - Gasoline displaced, GHG emission reductions, implementation costs (R&D, product development, vehicle costs, and infrastructure costs), barriers and needed incentives/regulations
 - Attempted to look specifically at supply, product availability (vehicles, engines), infrastructure, and consumer response
- Reconnected with stakeholder groups for input and met privately with individual stakeholders to further explore business case for each of the various fuels and technologies
- TIAX and CEC staff performed analysis based on stakeholder input and recently published reports



Characteristics of New Technology Introductions



Years

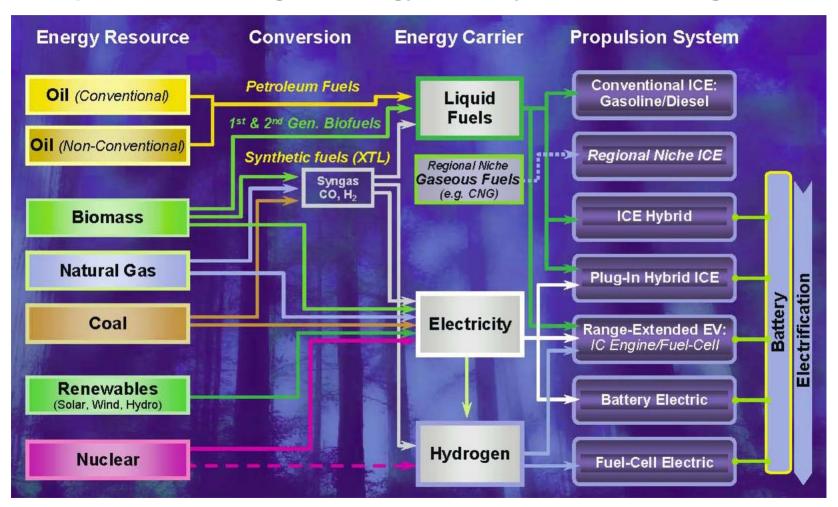
Market Launch & Consumer Acceptance function of developed vehicle technology vehicle availability vehicle performance, style, range, costs,, emissions, alternative fuels fueling infrastructure

Rate of Acceptance function of

fueling infrastructure costs/availability of conventional fuels vehicle owning and operating costs vehicle incentives vehicle regulations/mandates fuel pricing regulations



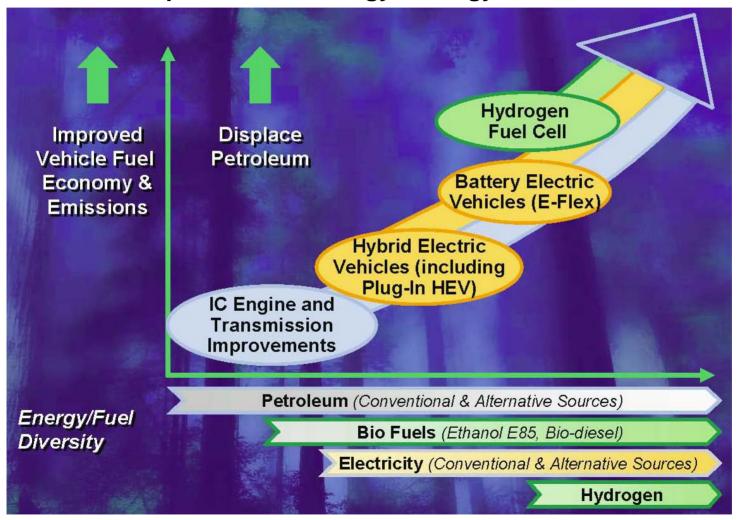
Transportation Challenge — Energy Diversity — Fuel Blending



Source: Peter Savagian, General Motors presentation to the 2007 Government Industry Meeting, May 16, 2007



Advanced Propulsion Technology Strategy



Source: Peter Savagian, General Motors presentation to the 2007 Government Industry Meeting, May 16, 2007



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